MGP-20 Push Mower

Owner's Manual

Mean Green Products, LLC
4404 Hamilton Cleves Rd. Unit 2 * Hamilton, OH 45013
513-738-4736 or 513-200-7561(Sales & Service)

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Tractors and Decks
Mean Green Products LLC
Two Year Limited Warranty For Residential and Commercial Use

WHAT IS COVERED BY THIS WARRANTY
Mean Green Products, makes the following warranty to the original purchaser only:
A. Residential Use: Mean Green Mowers used for normal **residential purposes*** are warranted for **two (2) years or 500 hours total usage (whichever comes first) from date of delivery** on all materials and workmanship.
If the Purchaser discovers within this warranty period (two years from date of delivery) a defect in materials or workmanship: He must promptly notify Mean Green Products or an authorized dealer, in writing of the defect.
In no event shall such notification be received by Mean Green Products, or an authorized dealer later than twenty-four (24) months from date of delivery. Within a reasonable time after such notification, Mean Green Products, will correct any defect in material or workmanship on the Mean Green Mower by repairing or replacing part(s) with either new or used replacement parts.
Such repair, including parts and labor shall be at the expense of Mean Green Products, and,
the batteries are covered by a three (3) year pro-rated limited warranty or 500 hr. usage, whichever comes first to the original owner **(consumer)** only.
1st year — 100%
2nd year — 66%
3rd year — 33%
NOTE: Failure to properly maintain batteries and keep them fully charged will reduce battery life and will void battery warranty.
The provisions of this limited warranty shall not apply to failure due to:
Abuse or neglect such as improper fluid levels, water damage, loose wiring, or rusted or corroded hardware; lack of proper maintenance; damage caused by improper installation of the battery; neglect, breakage, freezing, fire, explosion, wreckage, the addition of any chemical, operation of the battery in an overcharged, or the operation of the battery in an uncharged condition (below half-charge -1.200 specific gravity); and a battery charged by systems other than the original equipment type battery charger.
*** Normal residential purpose means use of product on same lot as your home.** Use at more than one location is considered commercial use, and then the commercial use warranty would apply.
B. Commercial Use: Mean Green Mowers used for commercial and institutional use are warranted for **two (2) years or 500 hours total usage (whichever comes first) from date of delivery** on all materials and

workmanship of chassis and deck structures and **one (1) year or 500 hours total usage (whichever comes first) from date of delivery** on all materials and workmanship. If the Purchaser discovers within this warranty period a defect in materials or workmanship:
He must promptly notify Mean Green Products, or an authorized dealer, in writing of the defect. In no event shall such notification be received by Mean Green Products, or an authorized dealer later than twelve to twenty-four (12-24) months from date of delivery. Within a reasonable time after such notification, Mean Green Products, will correct any defect in material or workmanship on the Mean Green Mower, by repairing or replacing part(s) with either new or used replacement parts. Such repair, including parts and labor shall be at the expense of Mean Green Products, and, **the batteries** are covered by a two (2) year pro-rated limited warranty or 500 hr. usage, whichever comes first to the original owner **(commercial)** only.
1st year — 100%
2nd year — 50%
NOTE: Failure to properly maintain batteries and keep them fully charged will reduce battery life and will void battery warranty.
The provisions of this limited warranty shall not apply to failure due to:
Abuse or neglect such as water damage, loose wiring, or rusted or corroded hardware; lack of proper maintenance; damage caused by improper installation of the battery; neglect, breakage, freezing, fire, explosion, wreckage, the addition of any chemical, operation of the battery in an overcharged, or the operation of the battery in an uncharged condition (below half-charge -1.200 specific gravity); and a battery charged by systems other than the original equipment type battery charger.
C. Rental Use: Mean Green Mowers used in rental applications are **not** covered by warranty. This also includes no warranty on the batteries.

WHO MUST PERFORM THE WARRANTY SERVICE

All warranty service will be performed by dealers authorized by Mean Green Products. **Service calls and/or transportation expense** of the product to and from the authorized dealer, for warranty work, will be paid by the owner of the product. For warranty service contact an authorized dealer.

WHAT IS NOT COVERED BY THIS WARRANTY

Mean Green Products, does not warranty:
Some product, components or parts not manufactured by Mean Green Products.
Repairs made by unauthorized persons. Damage caused by use of the Mean Green Mower for purposes other than those for which it was designed. Damages caused by disasters such as fire, flood, wind, and lightening. Damages caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, negligence, or misuse such as water damage. Repairs or replacement resulting from the use of unauthorized parts, accessories or attachments. Repairs or replacement as the result if any alterations or modifications, in the determination of the Mean Green Mower, which adversely affects the operation, performance or durability of the equipment. The Mean Green Mower which has the serial number removed or made illegible. Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow the product's owner's manual operating, maintenance and adjustment instructions or other operational instructions provided by Mean Green Products.
Normal maintenance parts and service including, but not limited to, lubricants, tune-up parts, blades, blade sharpening, bearings, brake or steering adjustments.

DISCLAIMER OF WARRANTY

The foregoing warranties are in lieu of all other warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. However, if the Mean Green Mower is purchased as a consumer product, any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

LIMITATION OF REMEDIES

In no case shall Mean Green Products, be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.
Such damages include, but are not limited to:
- Loss of profits
- Loss of savings or revenue
- Loss of use of the Mean Green Mower or any associated equipment

Cost of capital

- Cost of any substitute equipment, facilities, services or downtime
- The claims of third parties including customers, and injury to property

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

TIME LIMIT

Any action for breach of warranty must be commenced within twenty-four (24) months following delivery of the goods in a **residential** application. Any action for breach of warranty must be commenced within twelve to twenty-four (12-24) months following delivery of the goods in a **commercial** application.

NO OTHER WARRANTIES

This agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement.

ALLOCATION OF RISKS

This agreement allocates the risks of product failure between Mean Green Products and the purchaser. This allocation is recognized by both parties and is reflected in the price of the goods.

OWNER'S RESPONSIBILITY

You must maintain your Mean Green Mower following the maintenance procedures described in your owner's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

This machine like any other powered equipment is potentially dangerous unless properly operated. Any operator **must** be cautious and keep safety in mind at all times. Any operator, prior to using the Mean Green Mower, should thoroughly familiarize himself with the owner's manual regarding operation and safety of the machine, as well as all safety warnings on the machine itself.

WARRANTY REGISTRATION

1. Owners must register the unit by filling out the Warranty Registration Form, provided in the owner's packet. It MUST be completed and signed by the authorized dealer and original purchaser.

2. For validation, the completed Warranty Registration Form MUST be forwarded to Mean Green Products, within ten (10) days following date of purchase.

3. The date of purchase constitutes delivery.

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GENERAL INFORMATION

This manual applies to the following Mean Green Products equipment lines:
Mean Green Mowers – MGP-20 Push Mower

To the new owner

The purpose of this manual is to assist owners and operators in maintaining and operating the mower. Please read it carefully; information and instructions furnished can help you achieve years of dependable performance. It is the **owner's responsibility** to make certain that the operators and mechanics read and understand this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operators and mechanics are qualified and physically able individuals, properly trained in the operation of this equipment. All operator and mechanics must become familiar with the safe operation of the equipment, operator controls and safety signs. Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator. The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Using this manual

General operation, adjustment and maintenance guidance is outlined for both the experienced and novice Mean Green Mower user. Operating conditions vary considerably and cannot all be addressed individually. Through experience, however, operators should find no difficulty in developing good operating skills suitable to most conditions. Directions used in this manual, for example RIGHT or LEFT, refer to directions when seated on the mower/standing facing forward, unless otherwise stated.

Photographs and illustrations used were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. Mean Green Products reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been made to your machine which is not reflected in this owner's manual, or the parts manual, see your Mean Green Products dealer for current information and parts.

Warranty registration

The Owner must register the unit by filling out the Warranty Registration Form, provided in the owner's packet, to validate your warranty protection. As the new equipment owner, you are expected to see that this is done at the time of delivery. If using the Warranty Registration Form, it MUST be completed and signed by the authorized dealer and original purchaser.

Be sure to register the mower plus each attachment that displays a model and serial identification number plate with Mean Green Products.

IMPORTANT: Any unauthorized modification, alteration, or use of non-approved attachments voids the warranty and releases Mean Green Products from any liability arising from subsequent use of this equipment.

Model and serial number

The mower serial number is found on the serial identification plate located on the inside of the handle bar attach mount. The model is the type of Mean Green Mower purchased i.e. residential or commercial, push mower, walk behind or zero turn model. The serial numbers and model are required on the Warranty Registration form. They will also assure you of the correct service parts when replacement becomes necessary.

Parts and service

All warranty repair and service must be handled through an authorized Mean Green Products dealer. Arrangements should be made through your local service center.

SAFETY PRECAUTIONS

This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of ***PERSONAL SAFETY*** for operators and other persons during the normal operation and servicing of this equipment.

DANGER – denotes immediate hazards which WILL result in severe personal injury or death.

WARNING – denotes a hazard or unsafe practice which COULD result in severe personal injury or death.

This manual uses two other words to highlight information.

IMPORTANT calls attention to special mechanical information and **NOTE:** emphasizes general information worthy of special attention.

All operators and mechanics should read this manual and be instructed about safe operating and maintenance procedures. If the operators or mechanics cannot read and understand English, it is the owner's responsibility to explain this material to them.

However, improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol, which means DANGER or WARNING - "personal safety instructions." Failure to comply with the instructions may result in personal injury or death.

Incorrect usage of this machine may result in severe injury. Personnel operating and maintaining it should be trained in the proper use and should read the manuals completely and thoroughly before attempting to set-up, operate, adjust, or service this machine.

It is the **owner's responsibility** to make certain that the operators and mechanics read and understand this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operators and mechanics are qualified and physically able individuals, properly trained in the operation of this equipment. All operators and mechanics must become familiar with the safe operation of the equipment, operator controls and safety signs.

Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.

The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

The owner should also ensure that the operator/mechanic know that they are responsible for their own safety as well as the safety of other persons within the vicinity. **Remember,** the operator is responsible for accidents or hazards occurring to other people or their property.

Safety and Instruction Decals

Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. These decals should not be removed or obliterated. Replace them if they become non-readable.

The following illustrations show the various decals that are located on the machine. A brief explanation, for those requiring one, is shown to help the operator understand the meanings of these decals.

• Read Owner's Manual and Safety Warning Decals before attempting to operate this machine.

DANGER: Rotating blades! (fig.1A)

* Keep shields and covers in place while machine is in operation
* Keep hands, feet and clothing away from rotating blades

1A

DANGER: Safety Precautions!: (fig.2A)

1. Read Owner's Manual Before Operation
2. Keep Hands, Feet, And Clothing Away From Rotating Blades
3. Maintain Safe Distance From People And Pets
4. Roll Over Warning – Never Operate Machine On Greater Than 15 Degree Slope
5. Electrical Maintenance By Trained Professionals ONLY
6. Keep Safe Distance From Drop-Offs and Ditches
7. Move Slowly On Slopes
8. Be Aware When Backing Up
9. Battery Hazards – Wear Eye And Clothing Protection
10. Keep Flames Away From Charging Batteries
11. See Owner's Manual For Other Information

To ENGAGE BLADE, turn key on,
PULL UP safety bar and momentarily
push red buttom. BLADE will start in
3 seconds.
LO
POWER
SAFETY PRECAUTIONS
READ OWNERS MANUAL BEFORE OPERATION
KEEP HANDS, FEET, AND CLOTHING AWAY FROM ROTATING BLADE
MAINTAIN SAFE DISTANCE FROM PEOPLE AND PETS
2A

⚠ Warning: Do Not Step! (fig.1B)

*Fall Hazard

1B

⚠ <u>Important</u>: Mower Control Panel (fig.1C)

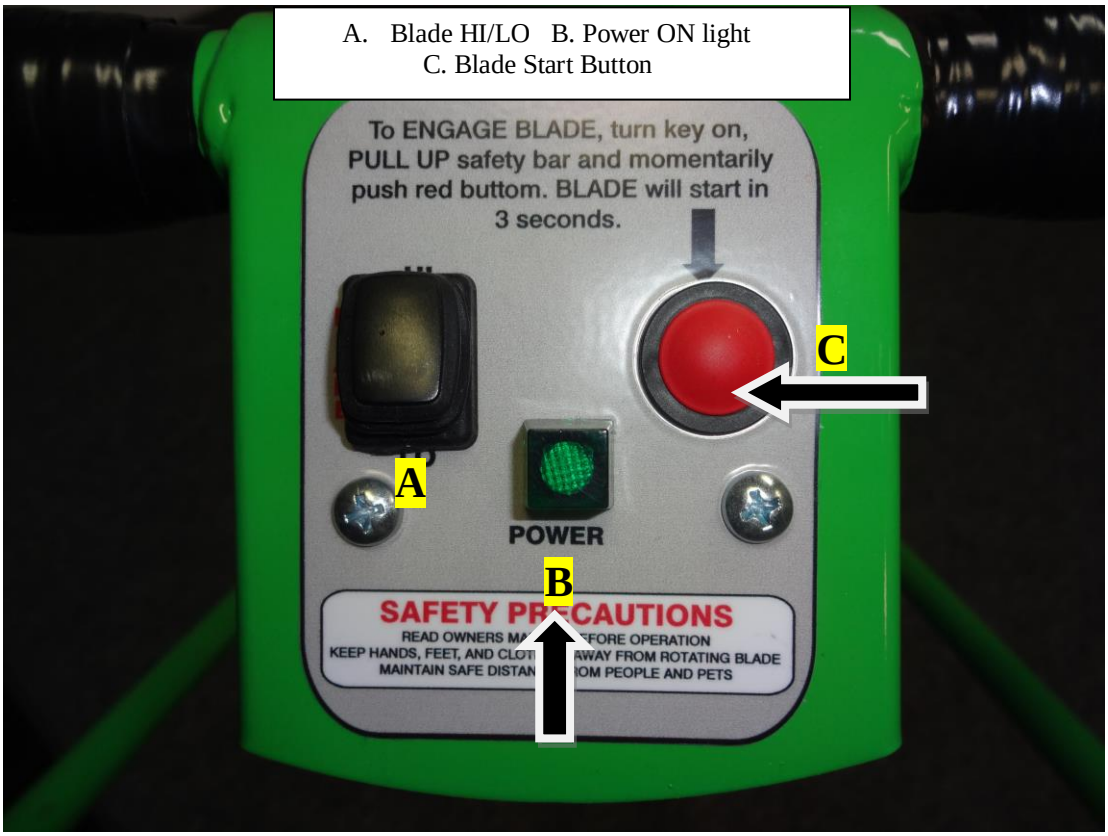

A. Blade HI/LO B. Power ON light
C. Blade Start Button
To ENGAGE BLADE, turn key on, PULL UP safety bar and momentarily push red buttom. BLADE will start in 3 seconds.
A
POWER
B
C
SAFETY PRECAUTIONS
READ OWNERS MA
EFORE OPERATION
KEEP HANDS, FEET, AND CLOT
AWAY FROM ROTATING BLADE
MAINTAIN SAFE DISTAN
OM PEOPLE AND PETS

Fig.1C Mower Control Panel

1H

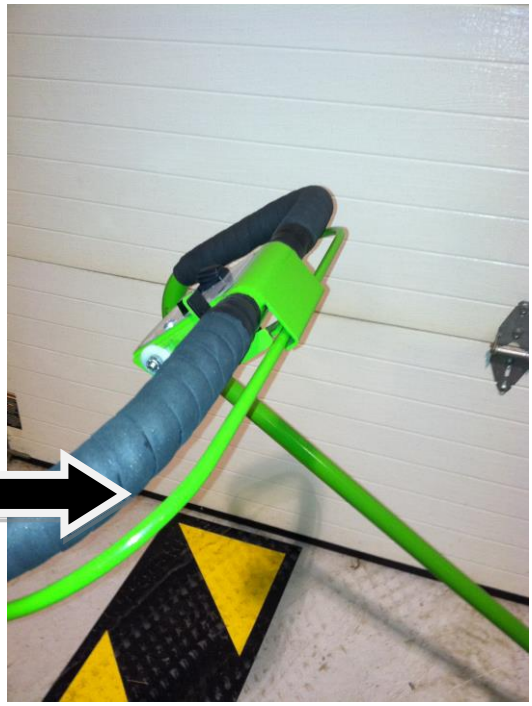


Fig. 1H: Operator Presence Safety Rod (Rod underneath handle bar grips) Rod must be depressed for mower blade switch to engage. Note: When lever is released, mower blades will automatically stop in less than 3 seconds.

⚠

*****Important: *IN CASE OF EMERGENCY*: Operator should immediately release Operator Presence Safety Rod to STOP blades!!*****

Fig. 1E

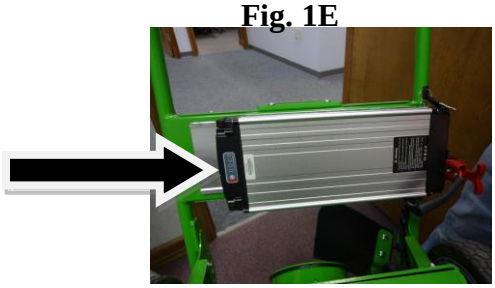


Fig.2E

Fig. 1E: Battery Capacity Indicator – (Located on the bottom left side of battery) When pushing the RED battery indicator button (Fig.2E) the charge indicator LED will light, indicating the relative charge remaining in the battery. 3 ***green*** LED lights indicate maximum charge capacity. 2 green LED lights indicate 2/3 capacity. 1 green LED light indicates 1/3 capacity. A ***red*** LED light indicates stoppage is imminent & return to a charging station!

IMPORTANT: When battery voltage becomes low, the mower blades will stop.

When the batteries discharge to this point they require recharging. **The unit should immediately be returned to the battery charging area and the unit connected to the battery charger.**

Fig.1D

Fig. 1D: Master Power Ignition Switch – (Located on the right side of battery) A **three** position Switch: Battery Lock, Off and On. With key inserted, rotate key clockwise to lock the battery pin in mount. Rotate clockwise again to the ON position to turn on power. Note: Power ON light will turn on when key is in the ON position (located on Mower Control Panel Fig.1C)

Fig. 2B: High & Low Mode Switch – Located on the left side of the control panel. Push switch to LO Mode for normal and light grass conditions. Switch to HI mode for thick and tall grass conditions.

NOTE: Mowing in LO mode will greatly extend the run time of the mower. Use LO mode as much as possible for maximum run time.

2B

Fig. 1F: Deck Blades ON and OFF: To engage blade, turn key to ON position, pull UP operator presence safety rod and momentarily push **RED** button (do not hold button down)(Fig.1G) (located on control panel) Operator Presence Safety Rod MUST be held against the handlebar for the blade to engage and operate. Releasing the Operator Presence Safety Rod will disengage the blade and the blade will stop spinning within 3 seconds.

NOTE: Always WAIT 3 seconds before re-engaging the blade after blade has been disengaged.

NOTE: There is always a few second delay before blades will start and stop!!

1F

To ENGAGE BLADE, turn key on,
PULL UP safety bar and momentarily
push red buttom. BLADE will start in
3 seconds.
POWER
SAFETY PRECAUTIONS

1G

OPERATION

Safe Operating Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Operation

Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
Clean battery compartment, drive motor compartment, mower deck, seat etc. of all dirt and debris. Keep unit free of grass clippings, leaves and other debris. **DO NOT** spray with water to clean unit. Do not use, solvents, hard cleaners or abrasives. Use only compressed air. Wear adequate eye and hearing protection when cleaning the unit.
Never leave a running machine unattended. Always stop on level ground, disengage deck blade switch, turn key to off position,
remove key and disconnect battery cables by pulling out on the black battery quick disconnect handle for any reason including emptying the catcher or unclogging the chute.
Always keep safety shields and covers in place.
Always maintain a safe distance from people and pets when mowing.
Always stop machine if someone enters the area.
Avoid injury. Keep area clear of bystanders when engaging deck blade switch.
Always operate machine in daylight or with adequate working lights.
Follow daily and weekly checklists, making sure electrical connections are secured and bolts are tightened.
Watch for traffic when operating near or crossing roadways.
Always be alert for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Watch out for holes or deep depressions.
Inspect area to be mowed for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Remove these objects before mowing.
Always inspect machine for damage after striking a foreign object. If damage is found, repair machine immediately. Be sure to stop on level ground, disengage deck blade switch, release Operator Presence Safety Rod, turn key to OFF position,
remove key and disconnect battery cables by pulling out the black battery quick disconnect handle in battery box compartment! Always wear adequate ear protection, such as earplugs, when operating this equipment as prolonged exposure to uncomfortable or loud noises can cause impairment or loss of hearing. Do not wear radios or music headphones while operating the machinery.
Safe operation requires your full attention.
Do not operate the equipment while wearing sandals, tennis shoes, sneakers, shorts or any type of loose fitting clothing. Long hair, loose clothing or jewelry may get tangled in moving parts. Always wear long pants, safety glasses, ear protection and safety shoes when operating this machine.
Always wear safety goggles or safety glasses with side shields when operating the mower.
Always be aware of what is behind the machine before backing up. Do not mow in reverse unless absolutely necessary.
Always look down and behind before and while backing up.
Never operate a poorly maintained machine.
Never attempt high speed maneuvering, especially in crowded, congested areas or on slopes.
Never allow persons to operate this machine without proper instruction or allow children to operate machine. Allow only responsible adults who have read and understand these instructions to operate this machine.
Never put hands or feet under any part of the machine while it is running.
Never carry passengers.
Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Always disengage the blades and wait for them to stop before crossing gravel drives, walks or roads.
Always keep clear of the mower blades and attachments during their operation.
Turn off blades when not mowing.
Slow down before turning.

Turn the key to the OFF position, remove key before removing the grass catcher or unclogging the discharge chute.
Never clear the discharge chute with the machine running. Turn
the key to the OFF position, remove key, and make sure the blades have stopped before cleaning.
Use a stick to clear a plugged discharge area. **Never use your hand!**
Do not operate the machine while under the influence of alcohol or drugs.
Exercise caution when loading or unloading the machine onto a trailer or truck.
Data indicates that operators, age 60 years and above, are involved in a large percentage
of mower-related injuries. These operators should evaluate their ability to
operate the mower safely enough to protect themselves and others from serious injury.
If any attachment or additional weight is mounted on the rear or side of the unit (depending on
model), any rapid movement in either direction could result in a reaction of the machine
that can cause serious injury.
**Clean flammable material from machine. Prevent
fires by keeping battery compartment, deck and operator's
station clean of accumulated trash, grass clippings,
and other debris.**

Using a ramp

Use extreme caution when loading and unloading a unit onto a truck or trailer with a ramp.
Use only a single, full width ramp; do not use individual ramps for each side of the unit.
Having a full width ramp provides a surface for the mower frame to contact if the
unit starts to tip backwards. It also reduces the risk of a wheel going off and the
machine tipping over. Do not exceed a 15 degree angle between the ramp and the ground
or between the ramp and the trailer or truck. When on a ramp avoid sudden acceleration.

Slope operation (see page 8A)

**Slopes are a major factor in loss-of-control and tip-over
accidents, which can result in severe injury or death. All
slopes require extra caution. If you cannot back up the slope
or if you feel uneasy on it; do not mow it.**
REMINDER: Only operate on slopes of 15 degrees or less.
Use extreme caution when operating on slopes.
• Be extremely careful changing directions on a slope.
• Slow down.
• Do not operate where the machine could slip or tip.
• Turn slowly
• Turn on the most level part of the slope
• To maximize traction, it is better to turn the front of the
machine uphill, rather than downhill. **If drive tires lose
traction, steering control is lost which could cause
serious injury or death.**
• If it becomes necessary to turn downhill, turn slowly
and gradually.
Do not remove or modify the stabilizer wheels.
Watch for holes, ruts, bumps, rocks or other hidden
objects. Uneven terrain could overturn the machine. Tall
grass can hide obstacles.
Remove obstacles such as rocks, tree limbs, etc.
Keep all movement on slopes slow and gradual. Do not
make sudden changes in speed or direction.
Avoid starting and stopping on a slope. If tires lose traction,
disengage the blades and proceed slowly straight
down the slope.
Mow a safe distance (minimum of 10 feet, 3.05 meters)
away from drop-offs, retaining walls, drainage ditches,
embankments, water, and other types of hazards to avoid
a wheel dropping over the edge or to avoid the ground
from breaking away. This will reduce the risk of the

machine suddenly rolling over causing serious injury or death.
Use a walk behind, push mower or hand-held trimmer on slopes and near drop-offs, retaining walls, drainage ditches, embankments and water to avoid machine rollover and serious injury or death.
Do not mow on wet grass. Reduced traction could cause sliding and loss of steering control.
Never make sudden starts, stops, turns, or reverse direction, especially when maneuvering on slopes.
Never stop suddenly while backing down slopes. This action may result in a reaction of the machine that can cause serious physical injury.
The Mean Green Mower is capable of operating horizontally (traverse) on moderate slopes. When operating on slopes up to 15 degrees, be aware of any conditions that may cause the mower to lose traction resulting in a possible loss of control of the machine. An operator should not operate on a slope until he is thoroughly familiar with the equipment.
Do not operate on slopes greater than 15 degrees.
Refer to Slope Guide, page 8A when determining the degree of slope to be mowed.
It is strongly recommended that the operator drive the machine off of the slope, using extreme caution, if any sign of loss of traction is detected. Wait until the condition that caused the problem is resolved before attempting to operate on the slope again.
Terrain conditions can affect traction resulting in possible loss of control of the machine. Some of the conditions to be aware of are:
1. Wet terrain
2. Depressions in the ground; i.e. holes, ruts, washouts
3. Mounds of dirt
4. Soil type; i.e. sand, loose dirt, gravel, clay
5. Grass type, density, and height
6. Extremely dry conditions of grass
7. Tire pressure (if applicable)
The attachments mounted to the mower will also affect the way it handles on a slope. Be aware that each attachment's characteristics vary.
Another consideration is to always mow a safe distance (minimum of 10 feet 3.05 meters) away from drop-offs, retaining walls, drainage ditches, embankments, water, and other types of hazards to avoid a wheel dropping over the edge or to avoid the ground from breaking away and always be aware of what is located at the bottom of the slope. This will reduce the risk of the machine suddenly rolling over causing serious injury or death.
Extreme caution should be used when there is a hazard located at the bottom of the slope. Some examples are:
1. Water; i.e. lake, river
2. Cliffs, retaining walls
3. Roads, highways
4. Buildings
5. Rocks
These are just a few examples of situations when caution must be used when operating

on a slope. There are many other possibilities too numerous to mention. **Just remember to always exercise extreme caution when operating on any slope.**

Children

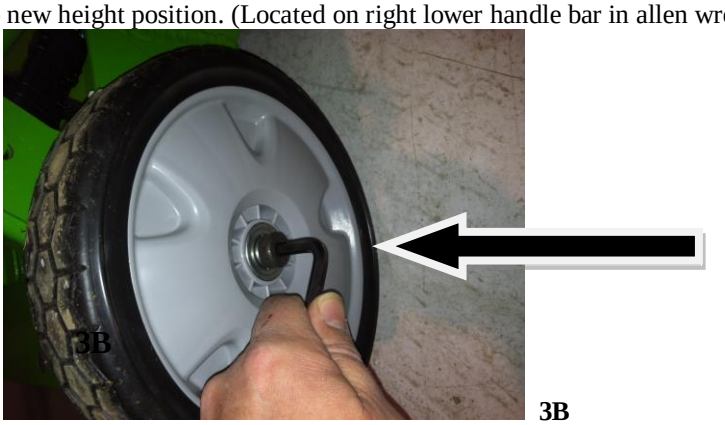
Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

Never leave machine unattended with key in switch, especially with children present. Children or bystanders may be injured if they move or attempt to operate the machine while it is unattended. Always disengage deck blade switch & turn key to OFF position and remove key. Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator. Be alert and turn the machine off if children enter the area. Before and while backing, look behind and down for small children.

Never carry children, even with the blades off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine. Never allow children to operate the machine.

Use care when approaching blind corners, shrubs, trees, the end of a fence or other objects that may obscure vision. Never allow children or others in or on towed equipment.

C. Manual Deck Height Adjustment (Fig.3B) To adjust the deck height, each wheel must be manually removed and moved to the appropriate wheel height position hole. The supplied "allen" wrench can be used to loosen each wheel bolt and then tighten into new height position. (Located on right lower handle bar in allen wrench holder)



3B

D. Discharge Chute – (Fig. 3C) Found on right side of chassis. WARNING: Always keep Discharge Chute in the down position when mowing and blades are moving.

Warning: Keep all shields in place at all times to prevent injury! DO NOT operate mower without discharge chute or other safety devices in place & working condition!

3C

E. Safety Start Interlock System

The machine is equipped with a safety start interlock system consisting of the Operator Presence Safety Rod and Operator Safety Lever.

Operating suggestions

DANGER: Prior to operating the mower the operator should be thoroughly familiar with the proper use and operation of the equipment, should read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An inexperienced operator should not mow on slopes or on uneven terrain.

WARNING: Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to "jump" them as the operator could be thrown away from the equipment. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until the wheel clears and then pivot the opposite wheel around. When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on one stopped wheel can damage turf. This is especially important when mowing.
Keep blades sharp. Many professional mowing companies have additional sets of blades and change blades twice a day: once in the morning and again at noon. **Many problems** with incorrect cutting patterns **are due to dull blades** or blades which have been **sharpened incorrectly.** Information on sharpening blades is listed in this manual's maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. **Blade sharpness should be checked daily.**

DANGER: Never work with blades while key is in the ignition switch. Always place deck blade switch in the **disengaged** position, release Operator Presence Safety Rod and turn key to the OFF position, remove key from switch and disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle!
Wear gloves when handling blades. **Always check for blade damage** if mower strikes a rock, a branch or another foreign object during mowing!
Direct grass discharge to right (with side discharge models), away from un-mown area. Select a mowing pattern that directs grass discharge towards the outside, not towards center, of mowing area. Generally, this means using a pattern utilizing **left turns** because side discharge is to **right.** In any case, avoid throwing grass discharge onto un-mowed area because grass is then mowed "twice". Mowing twice puts an unnecessary load on the unit and reduces mowing efficiency.
When mowing a lawn for the first time cut grass slightly longer than normal to avoid scalping uneven terrain. When possible, it is best to use the cutting height that was used in the past. When cutting grass taller than six inches, you may want to

mow the lawn twice to achieve a better quality of cut.
During normal mowing cut only about 1/3 of the grass blade. Cutting more than that is not recommended unless grass is sparse or it is the end of the mowing season.
Alternate mowing direction to keep the grass growing straight and better dispersion of the clippings.
Remember, grass grows at different rates at different times of the year. Mow more often in the early spring to maintain the same cutting height. As the growth rate slows in mid summer, mow less frequently. If you cannot mow at a regular interval, mow at a high cutting height; then mow again two days later at a lower cutting height.
Raise the cutting height of the mower if the cutting width of the mower is wider than the previous mower. This ensures that uneven turf is not cut too short.
Raise the cutting height of the mower if the grass if slightly taller than normal or if it contains a high degree of moisture. Then mow it again with the cutting height set lower.

WARNING: Never direct discharge of material from mower deck towards bystanders. **Do not** operate the mower without the discharge chute (with side discharge models).

Operating Instructions

Starting your mower:

1. With key inserted, turn Master Power Ignition Switch on by rotating key clockwise to the On position. The green power light will turn on (located on control panel).
2. Check for the appropriate blade speed mode on the Hi/LO Mode Switch.
3. LIFT Operator Presence Safety Rod TOWARD handle bar. Operator Presence Safety Rod ***MUST*** be held against the handlebar for the blade to engage and operate. NOTE: Releasing the Operator Presence Safety Rod will disengage the blade and the blade will stop spinning within 3 seconds.
4. To engage blade, while Operator Presence Safety Rod is engaged, momentarily PUSH red button (do not hold!)(located on control panel). Blade will start in 3 seconds.

Stopping your mower:

1. Release Operator Presence Safety Rod to stop the blades.
2. Rotate key in Master Power Ignition Switch counter clockwise to the OFF position.

NOTE: Always WAIT 3 seconds before re-engaging the blade after blade has been disengaged.
NOTE: There is always a few second delay before blades will start and stop!!

*****Important: *IN CASE OF EMERGENCY*: Operator should immediately release Operator Presence Safety Rod to STOP blades!!*****

MAINTENANCE & ADJUSTMENTS

Safe Servicing Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Service

Park the mower on level ground. Rotate key to OFF position and remove key from switch before doing any maintenance. Disconnect battery cables by pulling up out on the **LARGE RED** battery quick disconnect handle! Wait for all movement to stop before adjusting, cleaning or repairing. Repairs or maintenance requiring power should be performed by trained maintenance personnel only. Read and observe safety warnings in front of manual.

• Any maintenance operation that requires the removal of safety covers must be performed by a trained service technician.

Before working on or under the deck, make certain master power ignition switch is OFF and key is removed and deck blade switch cannot be accidentally started. Disconnect battery cables by pulling up out on the **LARGE RED** battery quick disconnect handle for maximum safety!

Repairs or maintenance requiring power should be performed by trained maintenance personnel only.

Use a stick or similar instrument to clean under the mower making sure that no part of the body, especially arms and hands are under mower.

Keep your machine clean and remove any deposits of trash and clippings, which can cause fires and overheating. Allow machine to cool before storing.

Clean flammable material from machine. Prevent fires by keeping battery compartment, deck and operator's station clean of accumulated trash, grass clippings, and other debris.

Clean battery compartment, mower deck, etc. of all dirt and debris. DO NOT spray unit with water. Do not use, solvents, hard cleaners or abrasives. Use only compressed air.

Always wear adequate eye protection when servicing the batteries, or when grinding mower blades and removing accumulated debris.

Never attempt to make any adjustments or repairs to the mower deck or any attachment while the blades are engaged. Repairs or maintenance requiring power should be performed by trained maintenance personnel only.

Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the traction drive system is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds (907.2 kg) to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.

Do not touch hot parts of machine.

Keep nuts and bolts tight, especially the blade attachment bolts. Keep equipment in good working condition.

Never tamper with safety devices. Check their proper operation regularly.

Turn the key to the OFF position before unclogging the discharge chute.

Never clear the discharge chute with the machine running. Turn the key to the OFF position and be sure the blades have stopped. Disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle for maximum safety before cleaning. Use a stick to clear a plugged discharge area. **Never use your hand!**

Stop unit, and allow blades to stop before unclogging chute.

Grass collection system components are subject to wear,

damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
Exercise caution when working under the deck as the mower blades are extremely sharp. Wear gloves and use extra caution when servicing them.
Use only genuine Mean Green Mower parts to ensure that original standards are maintained.
Always remove key and disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle before working on this unit.
Always disconnect batteries when transporting unit.
Keep unit free of grass clippings, leaves and other debris.
DO NOT spray with water to clean unit. Use only compressed air. Wear adequate eye and hearing protection when cleaning the unit.
Always wear safety glasses and protective gear near battery.
Use insulated tools.

Regular Maintenance

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis. For more detailed information order the correct parts manual for your unit.
Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.
Daily inspect mower for grass clippings and wire and string tangles. The underside of the mower deck may collect a buildup of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will probably show a poorer quality of cutting. Therefore it should be removed routinely.
To do this it will be necessary to raise and block the deck, using jack stands or blocks, in the full up position and scrape the build-up from underneath.
Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult Mean Green Products when assistance is needed.
Torque Values: WARNING: Particular attention must be given to tightening the drive wheel lug nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury. Call your Mean Green Products Dealer for assistance.

Torque values are given below:

	Ft.-lbs.	Nm
Wheel (lug) Nuts	65-75	88.14-101.7
Blade spindle bolt bottom	50	67.8

Electrical system

This mower operates on a 36 volt electrical system.
Refer to the *Electrical* section of this manual for detailed information.

Mower blade maintenance

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power. Replace any blade which is bent, cracked or broken.

WARNING: Never attempt to straighten a bent blade by heating, or weld a cracked or broken blade as the blade may break and cause serious injury. Replace worn or damaged blades.

DANGER: Never work with blades while key is in the ignition switch. Turn key to OFF position, remove key from switch and disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle! Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes a rock, branch or other foreign objects during mowing!

WARNING: Always wear adequate eye protection when grinding mower blades.

Mower blade removal

Use a 1/2" wrench or socket to remove the 3/8" cap screw holding the blade to the motor shaft from underneath. It may be necessary to use a 1-1/4" channel lock pliers to keep the blade adapter from turning while removing blade cap screw.

NOTE: The blade adapter will come off when the blade cap screw is removed. Touch-up sharpening can be done with a file. Check the blades for balance following grinding. A commercial balancing tool is available through most hardware supply stores, or balancing can be done by placing the blade on an inverted line punch or 1/2" bolt. Blade should not lean or tilt. Spin the blade slowly, blade should not wobble. If blade is out of balance, true it up before reinstalling. Lay the blade on a flat surface and check for distortion. Replace any distorted blade.

Mower blade installation

Do not re-use spindle bolts which have stripped, worn or undercut threads. Make sure that the blade adapter is seated properly on the blade motor shaft before tightening the blade cap screw. Use a 1/2" socket with a torque wrench to re-attach the blade to the motor shaft from underneath. It will be necessary to use a 1-1/4" channel lock pliers to keep the blade adapter from turning. Torque cap screws on motor shafts to 50 foot-pounds (67.8 Nm) when reinstalling blades.

IMPORTANT: The blade sail (curved part) must be pointing upward toward the inside of the deck to ensure proper cutting.

IMPORTANT: When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.

WARNING: Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.

WARNING: Mower blades are sharp and can cut. Wear gloves and use extra caution when servicing them.

ELECTRICAL SYSTEM

Electrical System Safety

Remove key; disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle and read owner's manual before adjusting or repairing unit. Always remove key and disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle before working on this unit.

Always disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle when transporting unit.

Keep unit free of grass clippings, leaves and other debris.

DO NOT spray water to clean unit. Use only compressed air. Wear adequate eye and hearing protection when cleaning the unit.

Always wear safety glasses and protective gear near battery.

Use insulated tools.

Clean battery compartment, drive motor compartment, mower deck, seat etc. of all dirt and debris. Do not spray unit with water. Do not use, solvents, hard cleaners or abrasives. Use only compressed air.

Avoid injury. With key in ON position mower blade can engage when safety lever switch is engaged, even if drive motor is not turning. Keep area clear of bystanders when engaging clutch switch.

All maintenance and storage areas should be properly ventilated in accordance with applicable fire codes and ordinances to avoid fire hazards. **Proper ventilation is required to remove hydrogen gas from the area during battery charging. (With Lead Acid Models)**

The amount of hydrogen gas emitted depends on several factors such as; battery charger output rate, battery charge time and battery condition. Because of the highly volatile nature of hydrogen gas and its propensity to rise and accumulate at the ceiling in pockets, a minimum of 5 air changes per hour is recommended. Consult applicable fire and safety codes for the specific ventilation levels requirement, as well as requirements for the use of explosion proof electrical apparatus.

Never allow flames, sparks or smoking near batteries.

Keep batteries out of reach of children.

Always keep protective shields, covers and guards in place and securely fastened. If they become damaged, repair or replace immediately. **Never modify or remove safety devices.**

Electrical System Information

The Mean Green Mower is powered by a 36 volt electrical system. It consists of the following components:

MGP-20 Push Mower

1. Blade controller - (1)
2. Deck Motors - (1)
3. Digital battery display (1) (on limited models)
4. Lithium Energy Modules (LEMs) - 1

Component Maintenance

IMPORTANT: Maintenance for the various electrical components found on the Mean Green Mower should only be performed by a Mean Green Products trained technician.

IMPORTANT: When battery voltage becomes low, the mower blades will stop. When the batteries discharge to this point they require recharging. **The unit should immediately be returned to the battery charging area and the unit connected to the battery charger.**

Battery Safety

Battery posts, terminals, and related accessories may contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

WARNING: Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from the charging port. Always wear safety glasses and protective clothing/gear. Use insulated tools.

WARNING: A frozen battery can explode and result in death or serious injury. Do Not charge batteries if frozen. Thaw the batteries before connecting to charger.

WARNING: Avoid skin and clothing contact with battery acid. LEAD ACID MODELS ONLY.
Always wear eye protection when checking the battery, acid can cause serious injury to skin and eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also damage clothing.
Do not drink the battery electrolyte.
Do not allow open flame near the battery when charging. Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to flame. Always remove the negative ground connection first and replace it last.
Do not overfill battery.
Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Clean the battery terminals with a solution of four parts water and one part baking soda when they become corroded.

WARNING: Sparks can cause a battery gas explosion which will result in serious personal injury.
Prevent the battery terminals from touching any metal mower parts when removing or installing the battery.
Do not allow metal tools to short between the battery terminals and metal mower parts. Use insulated tools.
Always keep protective battery cover and rear cover in place.

WARNING: Explosive gases from batteries can cause death or serious injury. Poisonous battery fluid contains

sulfuric acid and contact with skin, eyes or clothing can cause severe chemical burns.
Internal contact: Get medical attention immediately!

WARNING: Incorrect battery cable routing could cause damage to the mower and battery cables. This can cause sparks which can cause a battery gas explosion which will result in serious personal injury.

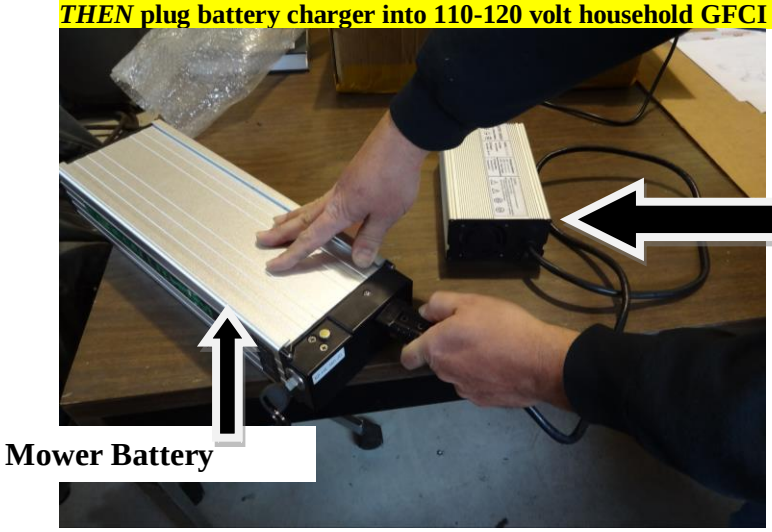
WARNING: Always disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle when transporting unit.

Battery Connectors

The battery connectors are located under the battery cover.
Always disconnect battery cables by pulling out on **LARGE RED** battery quick disconnect handle before performing maintenance on the unit.

Battery Charger

Battery can be charged on the mower OR after being removed from mower mounting bracket.
Use only the battery charger provided with the Mean Green Mower.
Charger options vary for the Mean Green Mower. Certain models are equipped with an **on and off** switch and others turn on automatically when plugged into outlet. NOTE: Always plug BLACK charger plug into BLACK mower charger plug (fig.5A) and ***THEN* plug battery charger into 110-120 volt household GFCI protected outlet.**



5A

Battery Maintenance (See Detailed Lithium Module Maintenance page at the end of manual)

Your Mean Green Mower is powered by 1 Lithium Module (LEM) which, when maintained properly, will provide years of useful life. For proper care, adhere to the following instructions:
1. Always charge batteries after each use, regardless of how little used. Batteries must be attached to a plugged in battery charger with the charger power switch ON when the unit is not being used.

WARNING: Charge only with a Mean Green Mower approved charger. Do not use battery chargers other than those recommended by Mean Green Products. Incorrect battery charging will void warranty and can lead to equipment damage, serious injury or death.
2. Check that battery cables are securely tightened to

batteries each time you service the battery.
3. Keep grass, dirt and debris from collecting near battery terminals.
4. Batteries are not to remain in a discharged state or damage to the batteries will occur. Lead sulfate deposits will form inside the batteries affecting charging and operation.
5. A discharged battery can freeze if left in conditions under 32 degree F (0 degrees C).
6. Charge batteries indoors in a well ventilated and dry location away from sparks or flames. Never expose charger to rain, vapor or liquid (dry location use only).
7. Charge only sealed lead acid type rechargeable batteries Or Lithium Modules (LEMs) provided with the Mean Green Mower.
8. Do not touch un-insulated portion of charger (terminal pins) of output connector.
9. Do not use with defective cords and wires. Replace defective cords and wires immediately.
IMPORTANT: Batteries must be attached to a plugged in battery charger with the charger power switch ON when the unit is not being used. Failure to keep batteries fully charged will reduce battery life and void battery warranty.

Battery Charging

NOTE: Lithium Modules can be charged either in or out of mower unit.

LEM10 lithium modules – approx. weight 12 lbs.
LEM20 lithium modules – approx. weight 20 lbs.

WARNING: Use Extreme Caution When Lifting Batteries Out Of Mower Unit. Serious Injury Could Occur If Battery Is Mishandled or Dropped!!

1. Plug RED charger plug into RED mower charge plug found on end of battery.

(**NOTE:** Plug will only fit one way into the port. Make sure it is properly aligned before inserting.)

IMPORTANT!

2. **IMPORTANT**: Turn Ignition Key Switch to FULL CLOCKWISE "ON" position for battery to accept charge.

3. Turn charger switch to the ON position (on certain models) OR unit will automatically turn on when unit is plugged into outlet. The cooling fan (on certain models) may or may not engage depending on battery charge level and charger temperature.
4. Allow 1-12 hours for a full battery charge (**depending on battery charger option**).
3 green LED lights indicate batteries are Fully Charged OR the red LED indicator will read 0.00 Amps. Leaving batteries on charger longer than 12 hours does not harm the batteries. The charger will not overcharge batteries.
5. When ready to use mower again after charging, always turn charger OFF before disconnecting charger from mower. Disconnect charger cord from wall outlet **then** from the mower.
6. Note: Be sure charger is positioned where air can flow unrestricted into and out of charger.

Charging Recommendations:

WARNING: Do not smoke while servicing the batteries.

WARNING: Always wear safety glasses and protective clothing near battery. Use insulated tools.
1. Lead acid batteries and Lithium Modules do not develop a memory and need not be fully discharged before recharging. **2.** Over the winter season, when mower is not used regularly, the charger can be kept plugged into the mower to maintain a full charge on the batteries. Batteries left uncharged will slowly discharge. Before initial use each spring season, be sure batteries have a full charge before mowing. **3.** If charger is not left plugged in, the batteries should be

fully charged every 30 days to maintain battery life. **4.** When charging, be sure charger cooling fan inlet and outlet are not blocked.

Disconnecting the Batteries (LITHIUM MODULES)
NOTE: ALWAYS disconnect battery cables by pulling out on
LARGE RED battery quick disconnect handle
before ***ANY*** maintenance is performed on mower unit.

1. **Unplug RED battery quick disconnect handle. (Fig.F)**
2. **To remove battery, push key in and rotate counter clockwise. This releases the mechanical pin.**
3. **Slide the battery to the left side of mower to remove from mounting tray. (Fig. Ga-b)**

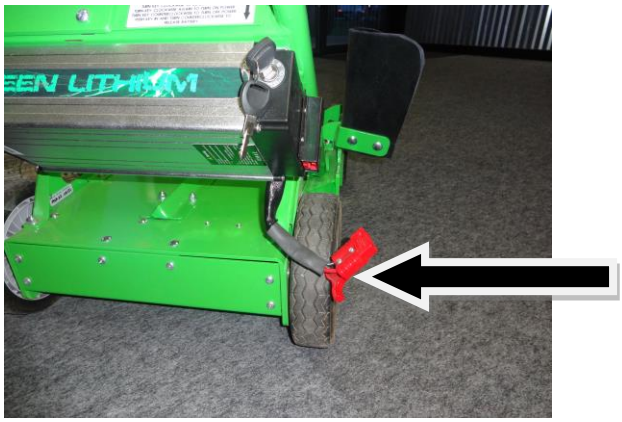
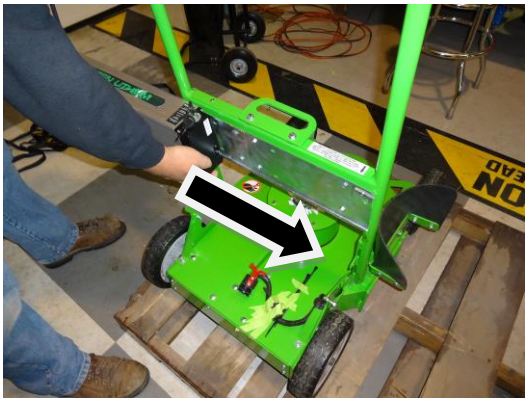


Fig.F

Fig.Ga

Fig.Gb

Fig. H



Reconnecting the Batteries (Lithium Modules)

1. Reverse process of disconnecting the battery **(Fig.H).**
2. Plug RED battery quick disconnect handle into right side of battery connecting port.

Battery Storage

To maximize battery life it is best to fully charge batteries shortly after each use.

The Mean Green Mower charger is designed to remain plugged into the vehicle and turned ON during storage. If the charger remains on and connected it will automatically maintain the charge level of the battery pack. All batteries self discharge over time.
If the mower can not remain plugged in and on charger then it is required that the battery pack be charged for a minimum of 12 hours every 30 days.
Failure to maintain the battery charge level will void the battery warranty.

TROUBLESHOOTING

SYMPTOMS & PROBABLE CAUSES
SUGGESTED REMEDIES

FOR ANY ELECTRICAL PROBLEMS

******RESET Mower Electronics by Switching Ignition Key to OFF position for approximately 5 seconds & then back to ON position.********

Battery Will Not Charge

MAKE SURE THAT THE Ignition Key Switch is turned to FULL CLOCKWISE "ON" position for battery to accept charge.

Mower blades stop while mowing

When battery voltage becomes low, the mower blades will stop. When the batteries discharge to this point they require recharging. **The unit should immediately be returned to the battery charging area and the unit connected to the battery charger.**

Uneven cutting height

The blade(s) are not sharp. Sharpen the blades.
A cutting blade(s) is/are bent. Install new cutting blade(s).
The deck is not level - Contact your Mean Green Products Dealer.
The underside of the deck is dirty. Clean the underside of the deck.
A blade spindle is bent. Contact your Mean Green Products Dealer.

Loss of deck operation

The deck fails to operate with fully charged batteries.
RESET Mower Electronics by Switching Ignition Key to OFF position for approximately 5 seconds & then back to ON position. If this does not remedy the problem - Contact your Mean Green Products Dealer.

Mower will not start

Check that key is in the ON position.
Check all battery connections in back battery compartment.
Make sure batteries are charged.

Blades will not start

Make certain that Operator Safety Lever is pulled rearward toward operator (to release safety) and at the same time you are lifting Operator Presence Safety Rod TOWARD handle bar. After Operator Presence Safety Rod is lifted, Blades should begin within a few seconds. Operator Presence Safety Rod MUST be held against the handlebar for the blade to engage and operate.

Mower blades stop due to low charge & mower will not move

Turn blades off, turn key to OFF position and then back to ON. (this resets computer)

STORAGE

When storing the unit at the end of the mowing season, the following steps should be taken to ensure readiness for the next mowing season.

1. Remove all grass, dirt, and trash from mower.

IMPORTANT: Wash the machine with a mild detergent and **small** amount of water. **Do not pressure wash the machine**. **DO NOT** saturate machine with water! Avoid excessive use of water, especially near the control switches and mower deck motors (located on deck of mower)
DO NOT get water in electrical compartment or in battery compartment!!!
IMPORTANT: Excessive water use may void warranty if guidelines are not followed!

2. Check thoroughly for any worn or damaged parts that need replacing and order them from your dealer.

3. Thoroughly lubricate wheel bearings & front caster spindles according to lubrication instructions. (if applicable)

4. Minimum half charge Lithium Ion batteries.

5. Do not deflate tires.

6. The mower should be stored in a well ventilated, clean and dry place as the battery charger can not be used in a wet environment. Connect the battery charger to the charger port. Always keep the batteries fully charged (lead acid). Especially important to prevent battery damage when the temperature is below 32°F (0°C).

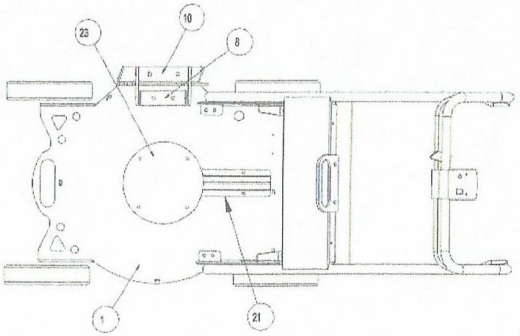
New season preparation

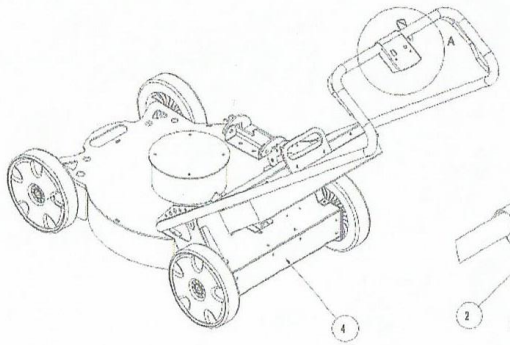
Before starting the mower following post season storage, the following servicing is required:

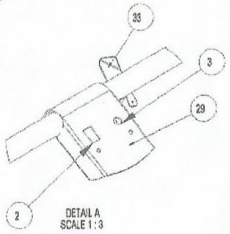
1. Clean machine, removing trash and dirt accumulation.

2. Review safety precautions listed in this manual.

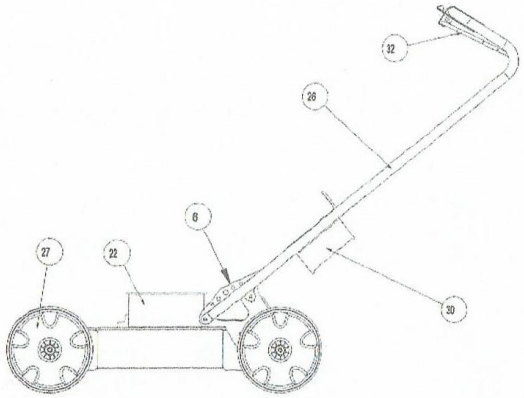
3. Make sure that batteries are fully charged

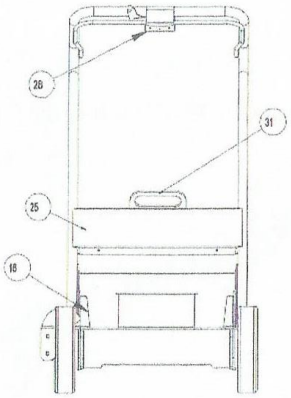






DETAIL A
SCALE 1 : 3





ITEM NO.	PART NUMBER	QTY.
1	MGP-20 MAIN DECK	1
2	BLADE DUAL SPEED SWITCH	1
3	LED POWER INDICATOR LIGHT	1
4	MGP-20 BACK COVER PLATE	1
6	MGP-20 HANDLE MOUNT PLATE	2
8	MGP-20 CHUTE BRACKET	1
10	MGP-20 OUTER TOP CHUTE BRACKET	1
16	MGP-20 HANDLE BAR STIFF BRACKET	2
21	MGP-20 WIRE COVER	1
22	MGP-20 MOTOR CASING	1
23	MGP-20 TOP MOTOR COVER	1
25	MGP-20 BATTERY COVER	1
26	MGP-20 HANDLE BAR	1
27	9 INCH WHEEL	4
28	MGP-20 BOTTOM CONTROL PANEL	1
29	MGP-20 TOP CONTROL PANEL	1
30	MGP-20 PUSH MOWER BATTERY	1
31	MGP-20 LEFT HANDLE	1
32	MGP-20 SAFETY BAR	1
33	MGP-20 SAFTEY LEVER	1

MEAN GREEN PRODUCTS LLC.

TITLE:
PUSH MOWER
MULTIPLE VIEWS

SIZE | DWG. NO. | REV
MGP 004

SCALE:1:7 | WEIGHT: | SHEET 1 OF 1

Lithium Energy Module Maintenance

In order to prolong the battery module cycle life and make sure the module stays in good condition, please read the following instructions.

1. Whenever a battery pack is fully discharged and turned off, DO NOT USE IT AGAIN until it is recharged. Over discharge of the battery pack means the battery life will be shortened and the battery may become permanently damaged.

2. Whenever a battery pack is fully discharged and turned off it is best to recharge the battery as soon as possible, there is no need to fully charge, it will even be beneficial if you only charge the module for 5~10 minutes. It is best to recharge it within 24 hours.

3. For the charging, charge every module separately as often as possible. Certain module pairs (MODULE A, and MODULE B) can be charged in parallel (while hooked together), but, each module should be charged separate at least every 20-30 charging cycles or when total run time is reduced..

4. Before connecting in parallel, please make sure the modules have the SAME SOC(state of charge or Voltage). Different SOC means different voltage and may charge & discharge to each other, we do not suggest for that use.

5. If the battery module will not be used for a long time (several days or weeks), please disconnect the connectors between modules and loads.

6. For long term storage, please keep the State of Charge 'SOC' at around fifty percent (50%) of the battery packs fully charged voltage level. To reach that point you can fully discharge the battery pack and then recharge the pack in half the charging time.

7. For long term storage, please discharge and recharge the battery pack at least once every 2 or 3 months.

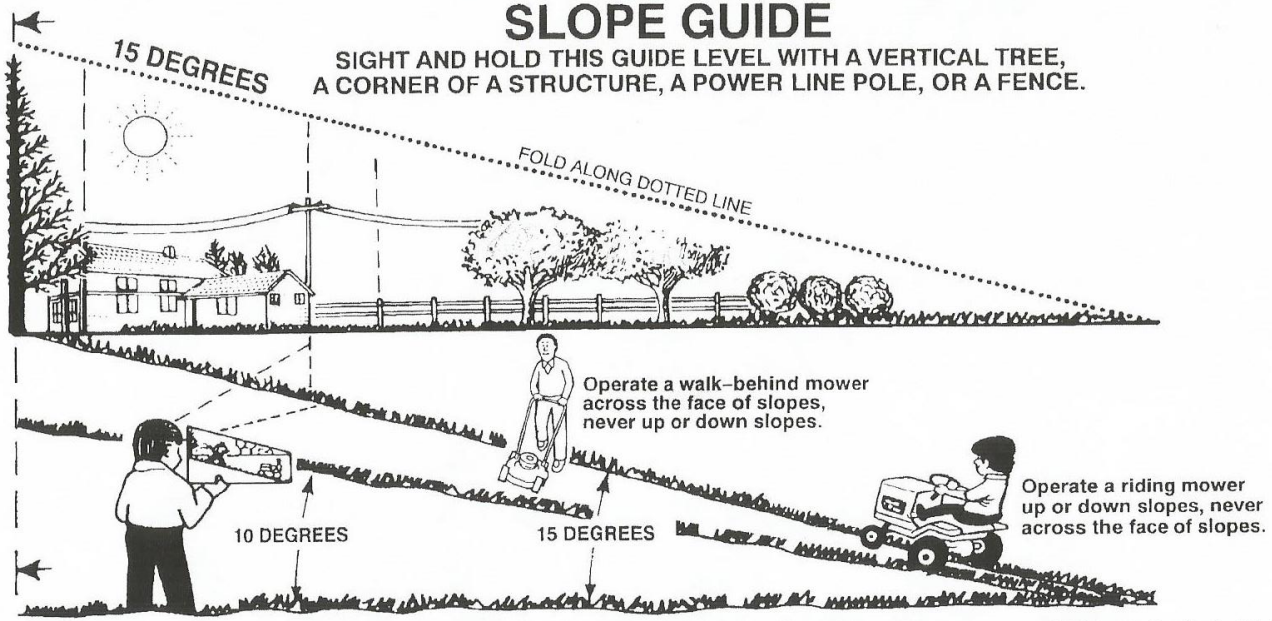
8. For long term storage, please make sure the storage temperature does not go below -10° C or above 55° C, the best is 15~45° C.

9. The best working environment of the battery module is 10 ~ 45 °C. Battery modules can be used at -20~45 for discharge, and 0 ~ 45° C for charge.

10. Avoid severe vibration. Do not throw or drop the battery pack.

SLOPE GUIDE

SIGHT AND HOLD THIS GUIDE LEVEL WITH A VERTICAL TREE, A CORNER OF A STRUCTURE, A POWER LINE POLE, OR A FENCE.


15 DEGREES
FOLD ALONG DOTTED LINE
Operate a walk–behind mower across the face of slopes, never up or down slopes.
Operate a riding mower up or down slopes, never across the face of slopes.
10 DEGREES
15 DEGREES

On a riding mower to determine if a slope is safe to mow: (1) disengage the blade(s), (2) put the unit in reverse, and (3) try to back straight up the slope. If you can back up the slope, it is generally safe to mow. However, if you do not feel safe, or if you are not completely sure, use this guide and do not mow a slope that is greater than 15 degrees. If the riding mower is used with a pull–behind or rear mounted attachment, do not operate the unit on a slope that is greater than 10 degrees.

A 15 degree slope is a hill that increases in height at approximately 2.5 feet in 10 feet.
A 10 degree slope is a hill that increases in height at approximately 1.7 feet in 10 feet.

Use extreme care at all times, and avoid sudden turns or maneuvers. Follow other instructions in this manual for safety in mowing on slopes. Operate a riding mower up or down slopes, never across the face of slopes. Operate a walk–behind mower across the face of slopes, never up or down slopes. Use extra care when operating on or near slopes and obstructions.